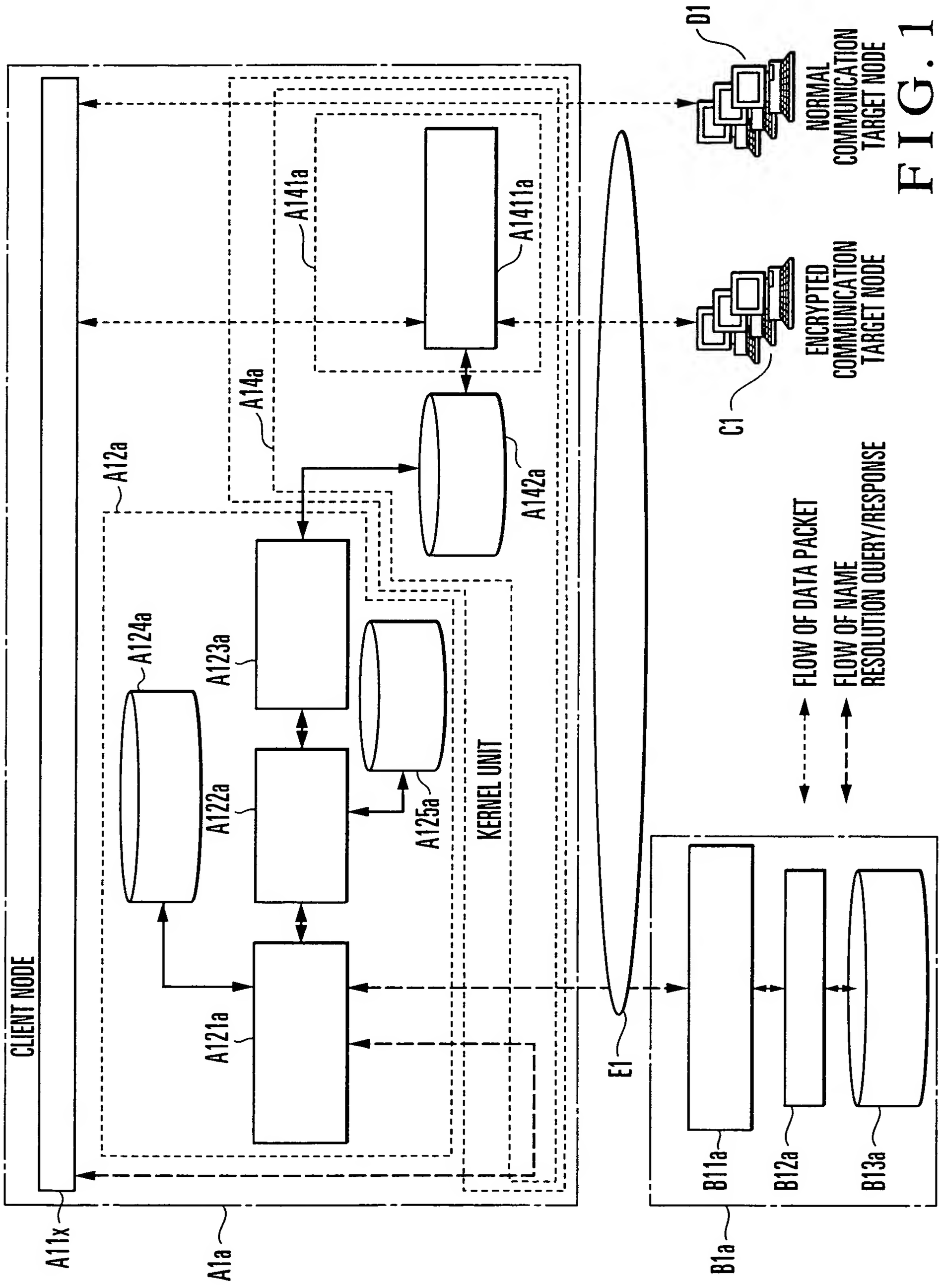
D1
NORMAL COMMUNICATION TARGET NODE
ENCRYPTED COMMUNICATION TARGET NODE
C1
FLOW OF DATA PACKET
FLOW OF NAME RESOLUTION QUERY/RESPONSE
A141a
A1411a
A142a
A12a
A124a
A123a
A122a
A125a
KERNEL UNIT
A121a
CLIENT NODE
A11x
A1a
E1
B11a
B12a
B13a
B1a

FIG. 1

CUG IDENTIFICATION INFORMATION	ENCRYPTED COMMUNICATION PATH SETTING INFORMATION		
DOMAIN NAME	COMMUNICATION PROTOCOL	DIGITAL CERTIFICATE ID	ENCRYPTION ALGORITHM
...	...	...	...
taro.nec.co.jp	SSL	10	3DES
jiro.biglobe.ne.jp	IPSec	15	AES
*.myfriends.com	SSL	11	DES
*.myfamily.com	IPSec	12	3DES
sato.*	SSL	13	DES
.satofamily.	SSL	14	AES
...	...	...	...

201

FIG. 2

COMMUNICATION PARTNER IP ADDRESS	ENCRYPTED COMMUNICATION PATH SETTING INFORMATION		
	COMMUNICATION PROTOCOL	DIGITAL CERTIFICATE ID	ENCRYPTION ALGORITHM
...	...	...	...
133.11.64.24	IPSec	10	3DES
19.23.43.13	IPSec	15	AES
1.3.3.2	IPSec	11	DES
...	...	...	...

301

FIG. 3

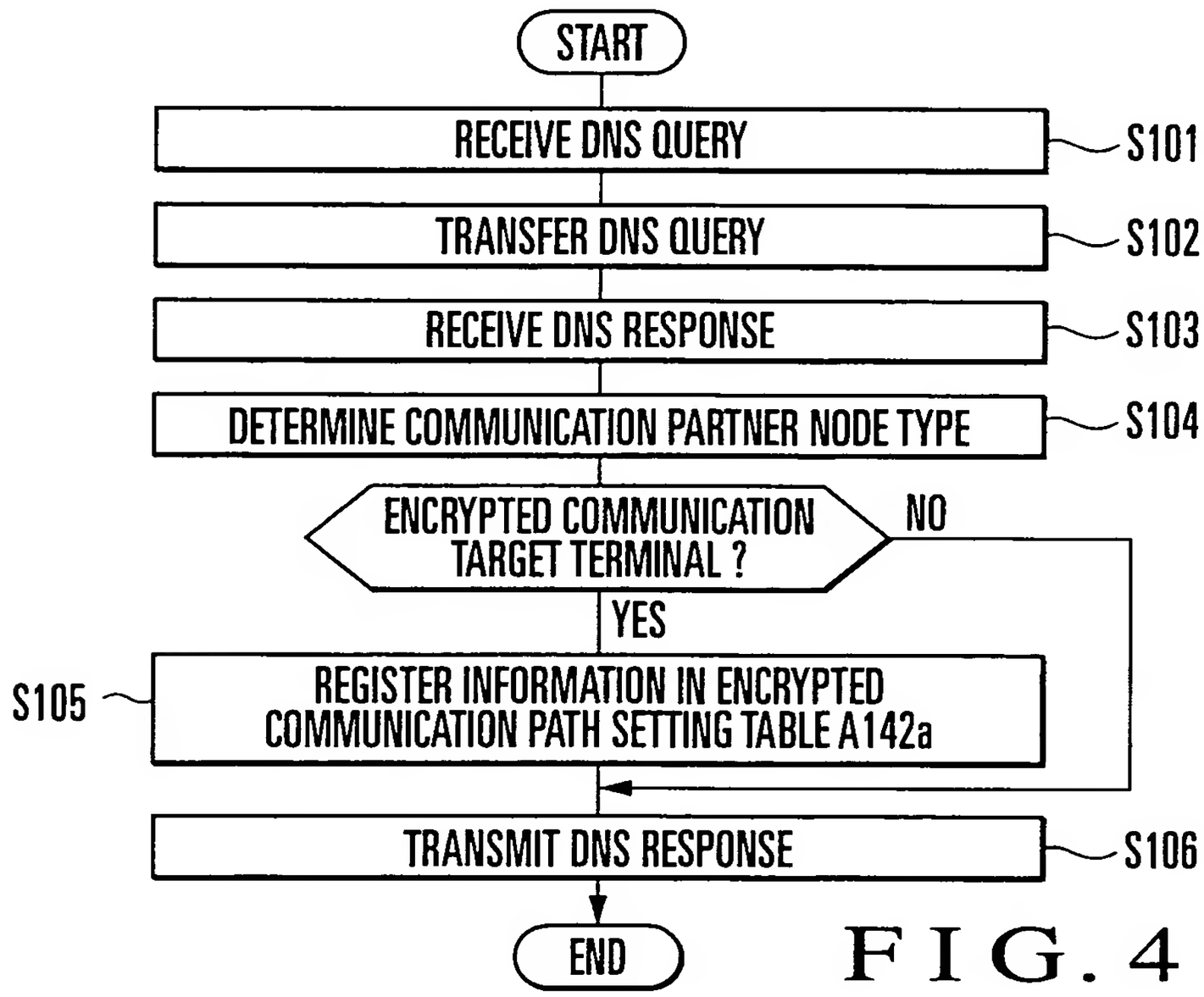

FIG. 4

Application of Yuichi ISHIKAWA; Norihito FUJITA;
Akio IIJIMA and Atsushi IWATA
ENCRYPTED COMMUNICATION METHOD
Assignee: NEC CORPORATION
Attorney Docket No. Q95944
July 12, 2006

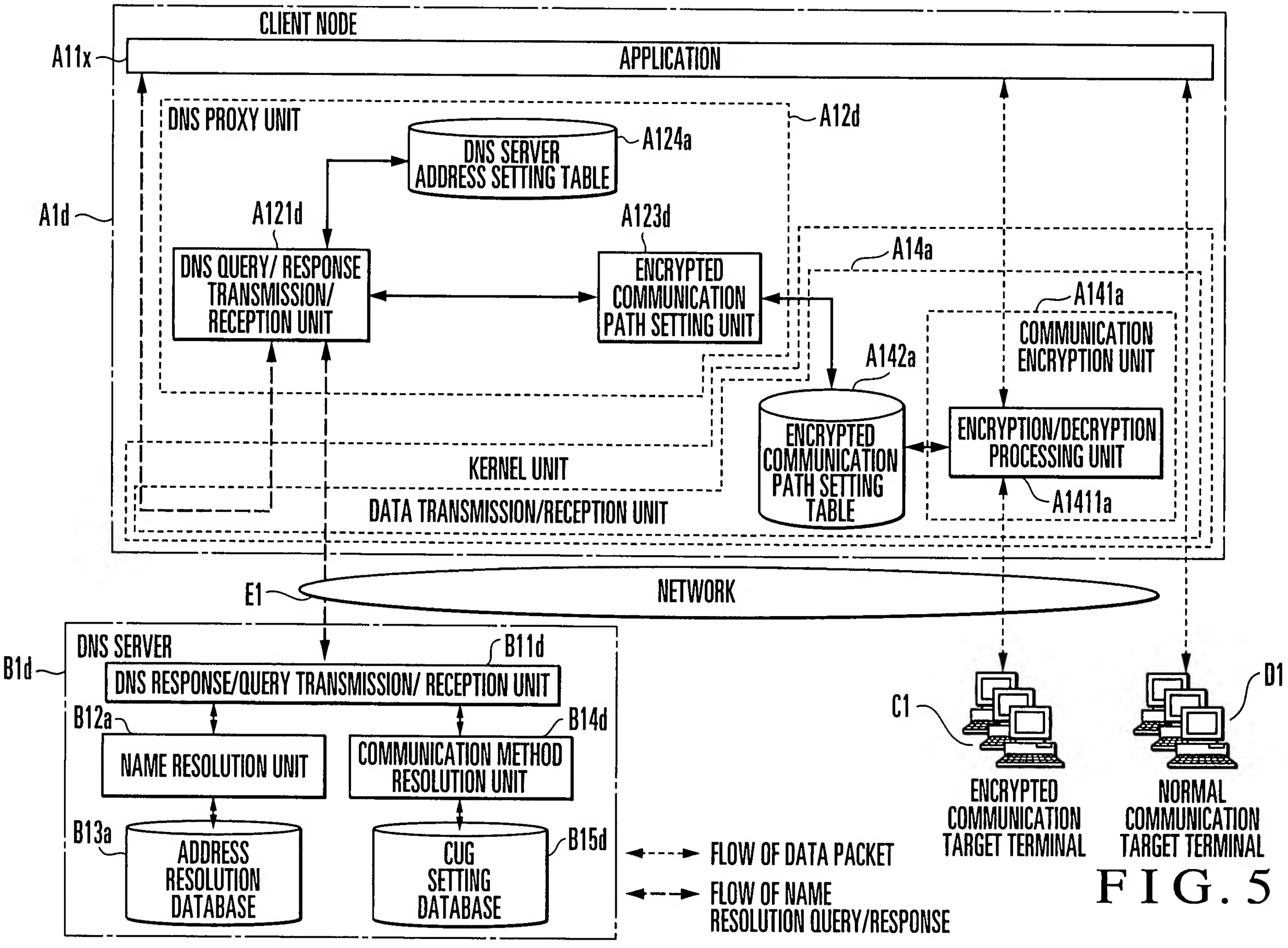

FIG. 5

501

CLIENT NODE IDENTIFICATION INFORMATION	Table ID
IP ADDRESS	
1.2.3.4	1
5.6.7.8	2
...	...
133.11.23.24	n
...	...

Table ID : 1

CUG IDENTIFICATION INFORMATION	ENCRYPTED COMMUNICATION PATH SPECIFICATIONS		
DOMAIN NAME	COMMUNICATION PROTOCOL	DIGITAL CERTIFICATE ID	ENCRYPTION ALGORITHM
*.jinji.nec.com	SSL	jinji.nec.com	3DES
*.soumu.nec.com	IPSec	jinji-soumu.nec.com	AES
*.keiri.nec.com	IPSec	jinji-keiri.nec.com	DES
...	...	...	...

502

Table ID : 2

CUG IDENTIFICATION INFORMATION	ENCRYPTED COMMUNICATION PATH SPECIFICATIONS		
DOMAIN NAME	COMMUNICATION PROTOCOL	DIGITAL CERTIFICATE ID	ENCRYPTION ALGORITHM
*.soumu.nec.com	SSL	soumu.nec.com	3DES
*.jinji.nec.com	IPSec	soumu-jinji.nec.com	AES
*.keiri.nec.com	IPSec	jinji-keiri.nec.com	DES
...	...	...	...

503

Table ID : n

CUG IDENTIFICATION INFORMATION	ENCRYPTED COMMUNICATION PATH SPECIFICATIONS		
DOMAIN NAME	COMMUNICATION PROTOCOL	DIGITAL CERTIFICATE ID	ENCRYPTION ALGORITHM
*.satofamily.com	SSL	satofamily	3DES
*.suzukifamily.com	IPSec	sato-suzukifamily	AES
...	...	...	...

504

FIG. 6

Application of Yuichi ISHIKAWA; Norihito FUJITA;
Akio IIJIMA and Atsushi IWATA
ENCRYPTED COMMUNICATION METHOD
Assignee: NEC CORPORATION
Attorney Docket No. Q95944
July 12, 2006

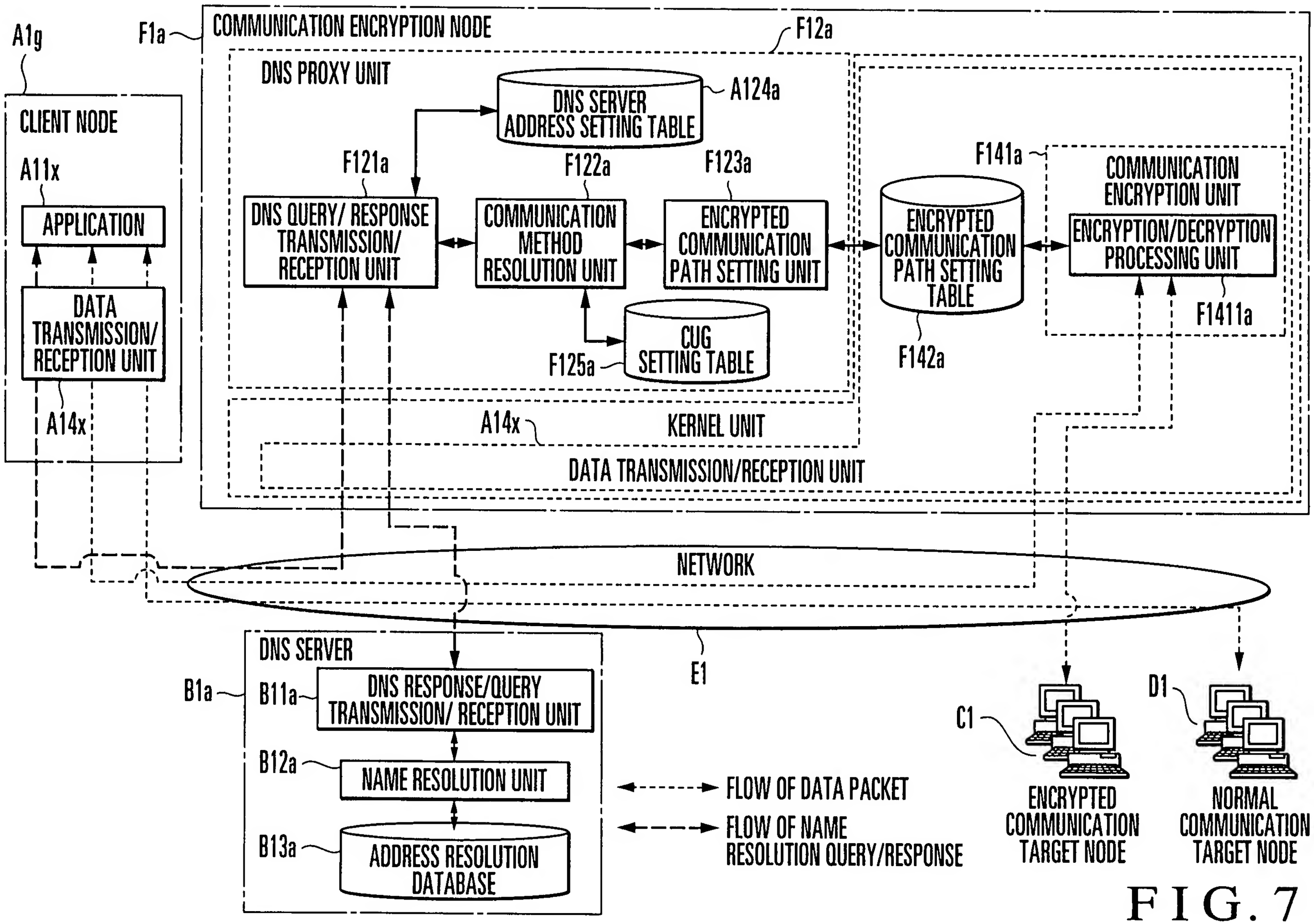

FIG. 7

Application of Yuichi ISHIKAWA; Norihito FUJITA; Akio IIJIMA and Atsushi IWATA
ENCRYPTED COMMUNICATION METHOD
Assignee: NEC CORPORATION
Attorney Docket No. Q95944
July 12, 2006

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INTERCEPT ADDRESS	COMMUNICATION PARTNER IP ADDRESS	ENCRYPTED COMMUNICATION PATH SETTING INFORMATION		
		COMMUNICATION PROTOCOL	DIGITAL CERTIFICATE ID	ENCRYPTION ALGORITHM
...	...	...	...	...
fe80::3090	aa91::1001	SSL	10	3DES
fe81::3091	bb92::1002	IPSec	15	AES
...	...	...	...	...

FIG. 8

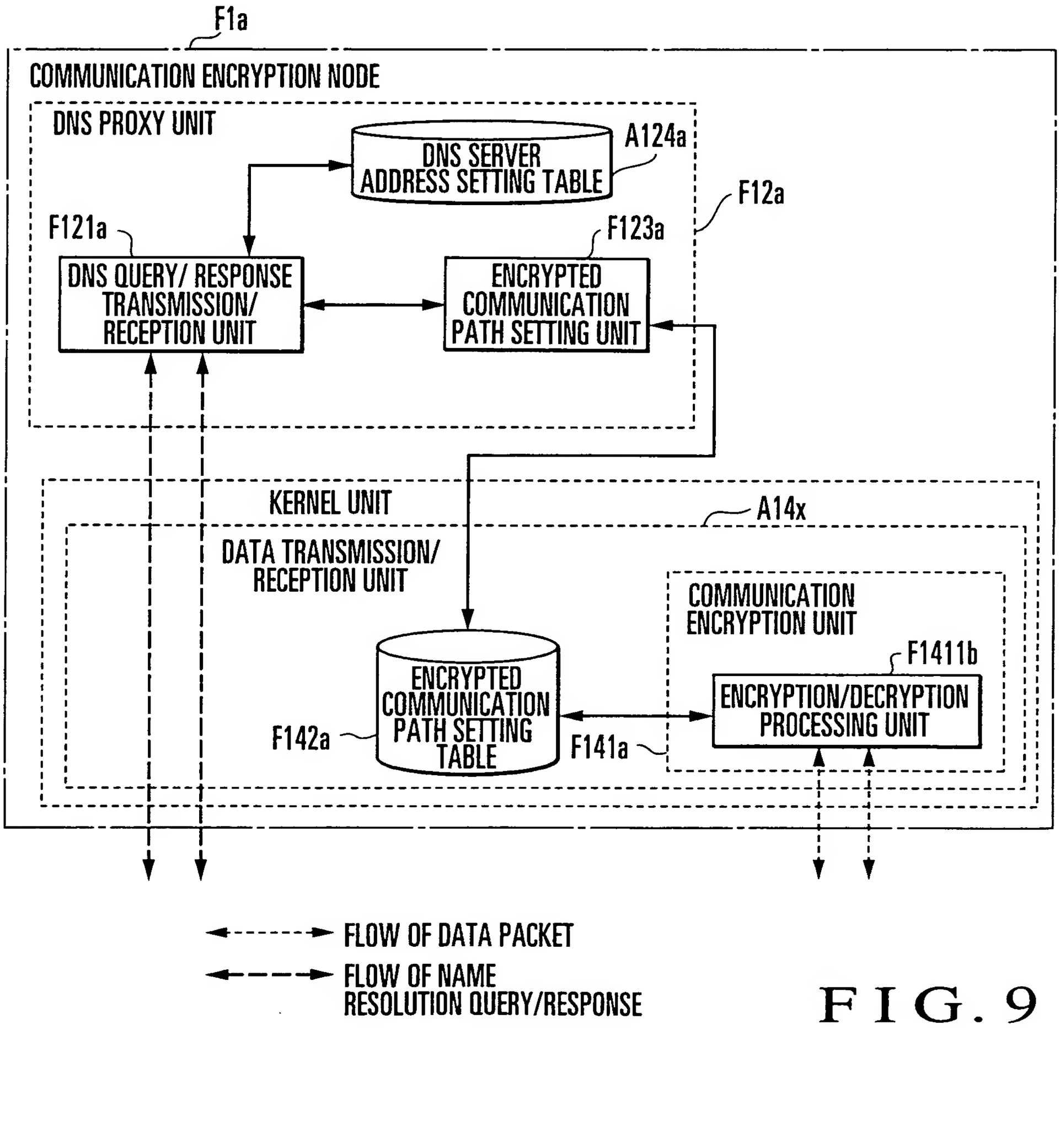
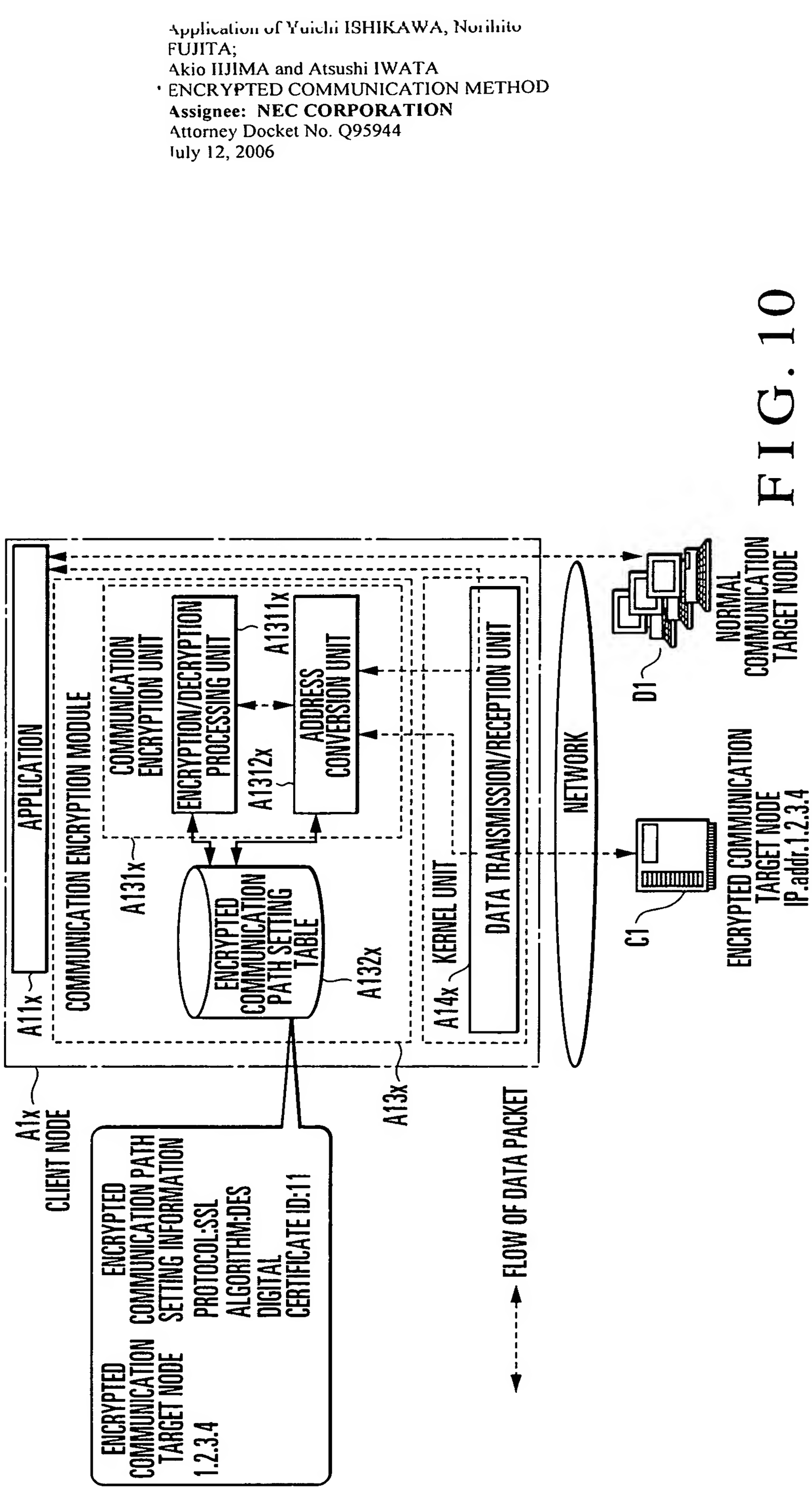


FIG. 9

FIG. 10


APPLICATION
A11x
COMMUNICATION ENCRYPTION MODULE
COMMUNICATION ENCRYPTION UNIT
ENCRYPTION/DECRYPTION PROCESSING UNIT
A1311x
A1312x
ADDRESS CONVERSION UNIT
A131x
ENCRYPTED COMMUNICATION PATH SETTING TABLE
A132x
A14x
KERNEL UNIT
DATA TRANSMISSION/RECEPTION UNIT
A13x
NETWORK
D1
NORMAL COMMUNICATION TARGET NODE
C1
ENCRYPTED COMMUNICATION TARGET NODE IP.addr.1.2.3.4
A1x
CLIENT NODE
ENCRYPTED COMMUNICATION TARGET NODE 1.2.3.4
ENCRYPTED COMMUNICATION PATH SETTING INFORMATION
PROTOCOL:SSL
ALGORITHM:DES
DIGITAL CERTIFICATE ID:11
FLOW OF DATA PACKET

Application of Yuichi ISHIKAWA; Norihito FUJITA;
Akio IIJIMA and Atsushi IWATA
ENCRYPTED COMMUNICATION METHOD
Assignee: NEC CORPORATION
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July 12, 2006

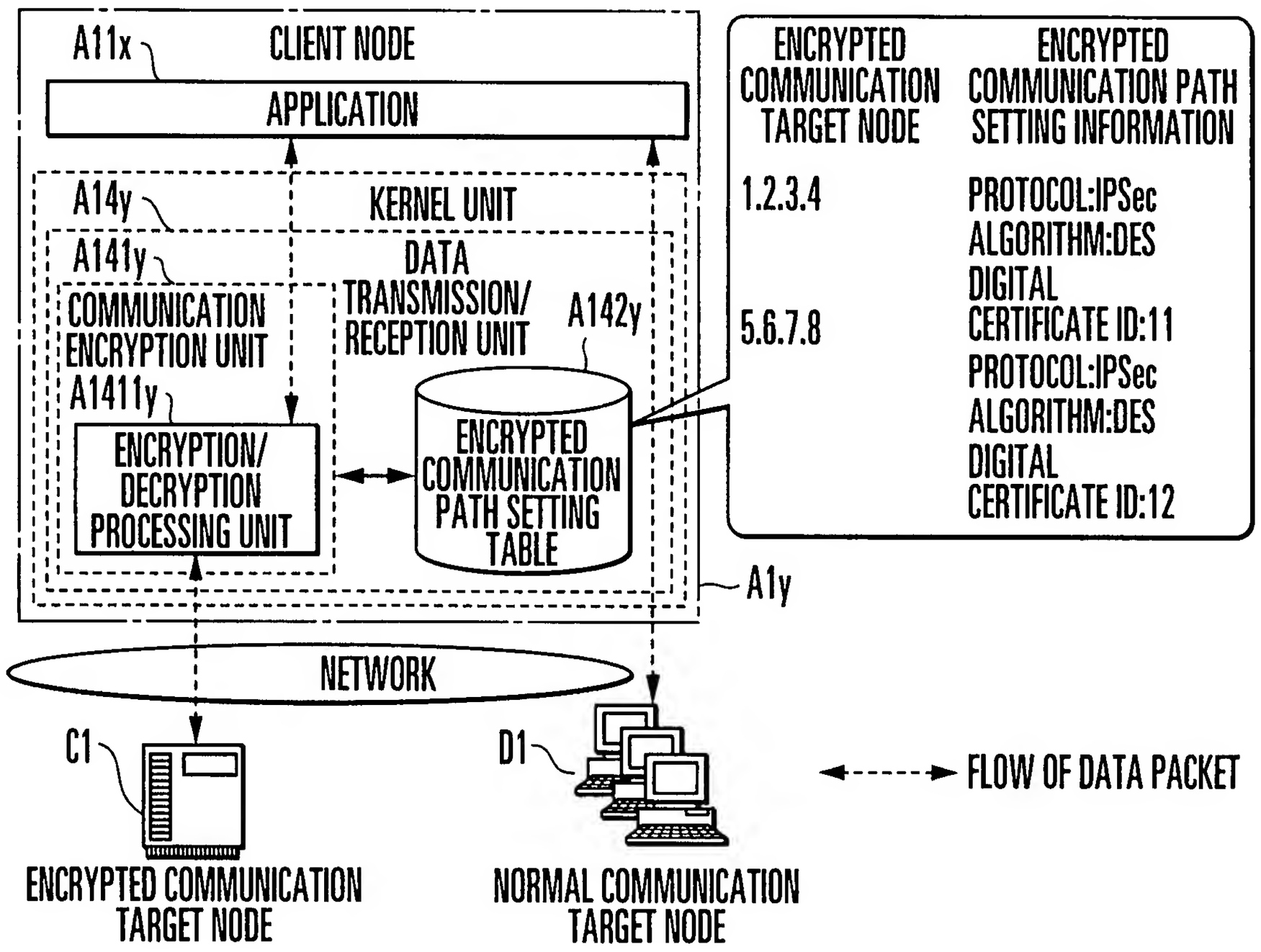

FIG. 11